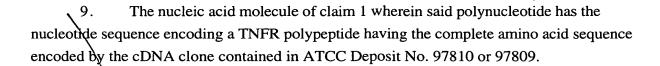
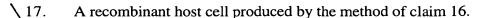


- 1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding a TNFR polypeptide having the complete amino acid sequence in SEQ ID NO:2 or 4 or as encoded by a cDNA clone contained in ATCC Deposit No. 97810 or 97809;
- (b) a nucleotide sequence encoding a mature TNFR polypeptide having an amino acid sequence at positions 31-300 or 31-170 in SEQ ID NO:2 or 4, respectively, or as encoded by the cDNA clone contained in the ATCC Deposit No. 97810 or 97809;
- (c) a nucleotide sequence encoding the soluble extracellular domain of a TNFR polypeptide having the amino acid sequence at positions 31-283 or 31-166 of SEQ ID NOS:2 and 4, respectively; and
- (d) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b) or (c) above.
- 2. The nucleic acid molecule of claim 1 wherein said polynucleotide has a complete nucleotide sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3.
- 3. The nucleic acid molecule of claim 1 wherein said polynucleotide has a nucleotide sequence which encodes a TNFR polypeptide having a complete amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4.
- 4. The nucleic acid molecule of claim 1 wherein said polynucleotide has a nucleotide sequence encoding the mature form of a TNFR polypeptide having an amino acid sequence from about 31 to about 300 in SEQ ID NO:2 or from about 31 to about 170 in SEQ ID NO:4.

- 5. The nucleic acid molecule of claim 1 wherein said polynucleotide has a nucleotide sequence encoding the soluble extracellular domain of a TNFR polypeptide having the amino acid sequence from about 31 to about 283 in SEQ ID NO:2 or from about 31 to about 166 of SEO ID NO:4.
- 6. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of residues m-300 of SEQ ID NO:2, where n is an integer in the range of 1-49;
- (b) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of residues n-170 of SEQ ID NO:4, where n is an integer in the range of 1-49;
- (c) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of residues 1-y of SEQ ID NO:2, where y is an integer in the range of 193-300;
- (d) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of residues 1-z of SEQ ID NO:4, where z is an integer in the range of 132-170; and
- (e) a nucleotide sequence encoding a polypeptide having the amino acid sequence consisting of residues m-y of SEQ ID NO:2 or n-z of SEQ ID NO:4 as m, n, y and z are defined in (a), (b), (c) and (d), above.
- 7. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding a polypeptide consisting of a portion of a complete TNFR amino acid sequence encoded by a cDNA clone contained in ATCC Deposit No. 97810 or 97809 wherein said portion excludes from 1 to about 48 amino acids from the amino terminus of said complete amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97810 and 97809;
- (b) a nucleotide sequence encoding a polypeptide consisting of a portion of a complete TNFR amino acid sequence encoded by a cDNA clone contained in ATCC Deposit No. 97810 or 97809 wherein said portion excludes from 1 to about 107 and from 1 to about 38 amino acids from the carboxy terminus of said complete amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97810 and 97809, respectively; and
- (c) a nucleotide sequence encoding a polypeptide consisting of a portion of a complete TNFR amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97810 or 97809, wherein said portion includes a combination of any of the amino terminal and carboxy terminal deletions for the respective clones in (a) and (b), above.
- 8. The nucleic acid molecule of claim 1 wherein said polynucleotide has the complete nucleotide sequence of the cDNA clone contained in ATCC Deposit No. 97810 or 97809.



- 10. The nucleic acid molecule of claim 1 wherein said polynucleotide has the nucleotide sequence encoding a mature TNFR polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97810 or 97809.
- 11. An isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a polynucleotide having a nucleotide sequence identical to a nucleotide sequence in (a), (b), (c) or (d) of claim 1 wherein said polynucleotide which hybridizes does not hybridize under stringent hybridization conditions to a polynucleotide having a nucleotide sequence consisting of only A residues or of only T residues.
- 12. An isolated nucleic acid molecule comprising a polynucleotide which encodes the amino acid sequence of an epitope-bearing portion of a TNFR polypeptide having an amino acid sequence in (a), (b), (c) or (d) of claim 1.
- 13. The isolated nucleic acid molecule of claim 12, which encodes an epitope-bearing portion of a TNFR polypeptide comprising amino acid residues selected from the group consisting of: from about Ala-31 to about Thr-46 in SEQ ID NO:2, from about Phe-57 to about Thr-117 in SEQ ID NO:2, from about Cys-132 to about Thr-175 in SEQ ID NO:2, from about Gly-185 to about Thr-194 in SEQ ID NO:2, from about Val-205 to about Asp-217 in SEQ ID NO:2, from about Pro-239 to about Leu-264 in SEQ ID NO:2, and from about Ala-283 to about Pro-298 in SEQ ID NO:2, from about Ala-31 to about Thr-46 in SEQ ID NO:4, from about Phe-57 to about Gln-80 in SEQ ID NO:4, from about Glu-86 to about His-106 in SEQ ID NO:4, from about Thr-108 to about Phe-119 in SEQ ID NO:4, from about His-129 to about Val-138 in SEQ ID NO:4, and from about Gly-142 to about Pro-166 in SEQ ID NO:4.
- 14. A method for making a recombinant vector comprising inserting an isolated nucleic acid molecule of claim 1 into a vector.
 - 15. A recombinant vector produced by the method of claim 14.
- 16. A method of making a recombinant host cell comprising introducing the recombinant vector of claim 15 into a host cell.



- 18. A recombinant method for producing a TNFR polypeptide, comprising culturing the recombinant host cell of claim 17 under conditions such that said polypeptide is expressed and recovering said polypeptide.
- 19. An isolated TNFR polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:
- (a) the amino acid sequence of a full-length TNFR polypeptide having the complete amino acid sequence shown in SEQ ID NO:2 or 4, or as encoded by a cDNA clone contained in ATCC Deposit No. 97810 or 97809;
- (b) the amino acid sequence of a mature TNFR polypeptide having the amino acid sequence at positions 31-300 in SEQ ID NO:2 or 31-170 in SEQ ID NO:4, or as encoded by a cDNA clone contained in ATCC Deposit No. 97810 or 97809; or
- (c) the amino acid sequence of a soluble extracellular domain of a TNFR polypeptide having the amino acid sequence at positions 31 to 283 in SEQ ID NO:2 or 31 to 166 in SEQ ID NO:4, or as encoded by the cDNA clone contained in ATCC Deposit No. 97810 or 97809.
- 20. An isolated polypeptide comprising an epitope-bearing portion of the TNFR protein, wherein said portion is selected from the group consisting of a polypeptide comprising amino acid residues: from about Ala-31 to about Thr-46 in SEQ ID NO:2, from about Phe-57 to about Thr-117 in SEQ ID NO:2, from about Cys-132 to about Thr-175 in SEQ ID NO:2, from about Gly-185 to about Thr-194 in SEQ ID NO:2, from about Val-205 to about Asp-217 in SEQ ID NO:2, from about Pro-239 to about Leu-264 in SEQ ID NO:2, and from about Ala-283 to about Pro-298 in SEQ ID NO:2, from about Ala-31 to about Thr-46 in SEQ ID NO:4, from about Phe-57 to about Gln-80 in SEQ ID NO:4, from about Glu-86 to about His-106 in SEQ ID NO:4, from about Thr-108 to about Phe-119 in SEQ ID NO:4, from about His-129 to about Val-138 in SEQ ID NO:4, and from about Gly-142 to about Pro-166 in SEQ ID NO:4.
 - 21. An isolated antibody that binds specifically to a TNRR polypeptide of claim 19.
- 22. A method of treating a patient in need of TNFR polypeptide activity comprising administering to the patient the TNFR polypeptide of claim 19.
- 23. A method of treating a patient in need of TNFR polypeptide activity comprising administering to the patient a nucleic acid of claim 1.

